

ENGINEERING STATEMENT  
RE DTV BROADCAST ENGINEERING DATA  
MODIFICATION OF CONSTRUCTION PERMIT  
ON BEHALF OF  
INDEPENDENCE TELEVISION COMPANY  
WDRB-DT, LOUISVILLE, KENTUCKY  
CHANNEL 49 1000 KW ND ERP 390.4 METERS HAAT  
JUNE 2008

COHEN, DIPPELL AND EVERIST, P.C.  
CONSULTING ENGINEERS  
RADIO AND TELEVISION  
WASHINGTON, D.C.

COHEN, DIPPELL AND EVERIST, P. C.

City of Washington                    )  
  ) ss  
District of Columbia                )

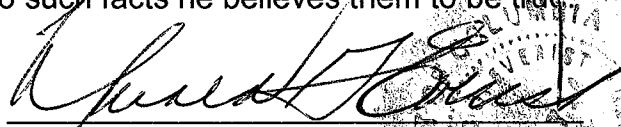
Donald G. Everist, being duly sworn upon his oath, deposes and states that:

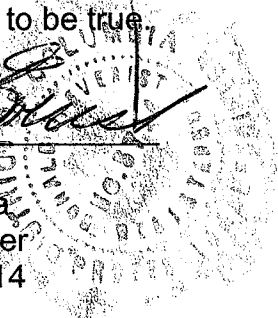
He is a graduate electrical engineer, a Registered Professional Engineer in the District of Columbia, and is President, Secretary and Treasurer of Cohen, Dippell and Everist, P.C., Consulting Engineers, Radio - Television, with offices at 1300 L Street, N.W., Suite 1100, Washington, D.C. 20005;

That his qualifications are a matter of record in the Federal Communications Commission;


That the attached engineering report was prepared by him or under his supervision and direction and

That the facts stated herein are true of his own knowledge, except such facts as are stated to be on information and belief, and as to such facts he believes them to be true.

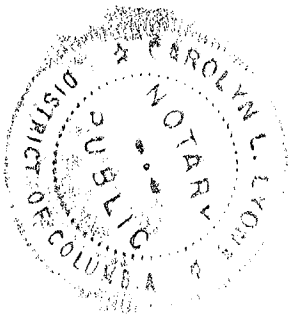
  
\_\_\_\_\_  
Donald G. Everist  
District of Columbia  
Professional Engineer  
Registration No. 5714



Subscribed and sworn to before me this 16<sup>th</sup> day of June, 2008.

  
\_\_\_\_\_  
Notary Public

My Commission Expires: 2/28/2013



This engineering statement has been prepared in support of an application for modification of outstanding construction permit [file number BPCDT-20051130ACJ] on behalf of Independence Television Company, licensee of WDRB-DT, Louisville, Kentucky. The purpose of the application is to maximize and operate non-directional from that authorized by pattern of the allotted Appendix B<sup>1</sup> facilities using 1000 kW directional effective radiated power ("ERP"). This maximization request is in accordance with the FCC Public Notice dated May 30, 2008.<sup>2</sup>

WDRB(TV) is licensed to operate on NTSC television Channel 41 with a maximum visual ERP of 5000 kW and an antenna height above average terrain ("HAAT") of 390 meters (1280 feet). WDRB-DT has been allocated DTV Channel 49 with facilities of 1000 kW directional and HAAT of 390 meters in the revised DTV Table of Allotments and has received a construction permit for these facilities.<sup>3</sup> WDRB-DT proposes to construct DTV facilities of 1000 kW non-directional at a height above average terrain of 390.4 meters. WDRB-DT will be diplexed into the common antenna with WMYO-DT. The antenna specified herein is a design which has yet to be determined to have the appropriate bandwidth. In order to install the final antenna, it will be necessary to dismantle and remove the existing WDRB NTSC antenna. During that period of construction, WDRB-DT will continue to operate from its current DTV facilities.

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<sup>1</sup>"In the Matter of Advanced Television Systems and Their Impact Upon the Existing Television Broadcast Service", MM Docket 87-268, Memorandum Opinion and Order on Reconsideration of the Seventh Report and Order and Eighth Report and Order (FCC 08-72) Appendix B, Released March 6, 2008.

<sup>2</sup>"Commission Lifts The Freeze On The Filing Of Maximization Applications And Petitions For Digital Channel Substitutions, Effective Immediately", DA 08-1213, Released: May 30, 2008.

<sup>3</sup>Ibid.

Maximization

An allocation study from the proposed site has been performed as the predicted F(50,90) 41 dBu contour of the proposed DTV facilities at the currently authorized site extends beyond in certain directions as the predicted F(50,90) 41 dBu contour of the WDRB-DT facility in the Appendix B.

Allocation

An allocation study from the proposed site has not been performed as no channel change is proposed from that specified in Appendix B of the Memorandum Opinion and Order on Reconsideration of the Seventh Report and Order and Eighth Report and Order ("Appendix B").

Transmitter Site and Equipment Data

There are no AM stations located within 3.2 km of the proposed WDRB-DT tower site. There are no FM and there is one other full-service DTV facility, WMYO-DT, within 100 meters.

The DTV antenna will be top-mounted on the existing tower. The WDRB-DT common antenna will be located on an existing tower having a total overall structure height above ground of 304.8 meters (1000 feet). The existing transmitter site is located at 5257 South Skyline Drive, Floyds Knob, Indiana. The registration number for the tower is 1028421.

See there is no change in overall height, FAA airspace approval is not required.

Exhibit E-1 is a vertical sketch of the existing tower and the proposed transmitting antenna.

The geographic coordinates of the proposed site are as follows:

North Latitude: 38° 21' 00"

West Longitude: 85° 50' 57"

## NAD-27

Equipment Data

Antenna: Dielectric, Model TFU-32GTH-RO6 (or equivalent) antenna with 0.9° electrical beam tilt. The vertical plane pattern and other exhibits required by Section 73.625(c) are herein included as Exhibit E-2.

Transmission Line: 325 meters (1065 ft) of Dielectric, Type EIA rigid TL, 8-3/16", 75 ohm or equivalent

Power Data

Transmitter output	51.4 kW	17.11 dBk
Combiner efficiency/loss	94.4	0.25
Transmission line efficiency/loss	79.3%	1.01 dB
Input power to the antenna	38.46 kW	15.85 dBk
Antenna power gain, Main Lobe	26	14.15 dB
Effective Radiated Power,	1000 kW	30 dBk

Elevation Data  
[(unchanged)]

Vertical dimension for Channel WDRB-DT common antenna	16.1 meters 52.8 feet
Overall height above ground of the existing antenna structure (including beacon and lightning rod)	304.8 meters 1000 feet

Center of radiation of Channel 49 antenna above ground	296 meters 971 feet
Elevation of site above mean sea level	292.9 meters 961 feet
Center of radiation of Channel 49 antenna above mean sea level	588.9 meters 1932 feet
Overall height above mean sea level of existing tower and stacked antenna (including beacon)	597.7 meters 1961 feet
Antenna height above average terrain	390.4 meters 1281 feet

Note: Slight height differences may result due to conversion to metric.

#### Coverage

The average elevation data for 3.2 to 16.1 km along each radial are based upon the 3-second NGDC profile data and conforms very closely to the terrain information of that determined by using the 7.5 minute topographic maps on file at the Commission.

The F(50,90) DTV coverage contour has been computed every [45] degrees in azimuth from reference to the propagation data for Channels 14-69, as published by the FCC in Figure 10b and Figure 10c, Section 73.699 of the FCC Rules and Regulations.

Utilizing the formula in Section 73.625(b)(2) of the Rules for the effective heights, it is found that the depression angle,  $A_h$ , varies from 0.503 to 0.595 degrees. Since the relative vertical field is greater than 90% of the maximum at these depression angles, the maximum power was used in determining the distance to the DTV contour.

Table II includes the distances to the 48 and 41 dBu F(50,90) coverage contours, the average elevation 3.2 to 16.1 km, and the antenna height above average terrain for each of the 45 degree spaced radials. Exhibit E-3 provides the 48 and 41 dBu F(50,90) coverage contours and demonstrates that the community of license is covered by the F(50,90) 48 dBu contour.

Total Radiofrequency Field Levels at WDRB-DT Tower Site

The total percentage of radiofrequency field levels ("RFF") can be calculated by combining the percentage contribution of each station.

<u>Station</u>	<u>ERP</u> (kW )	<u>Frequency</u> (MHz)	<u>Ch</u>	<u>RCAG</u> <u>L</u> (m)	<u>Relative</u> <u>Field</u>	<u>S</u> ( $\mu\text{W}/\text{cm}^2$ )	<u>RFF</u> (%)
WMYO- DT Proposed	1000	695	51	296	0.15	8.7	1.9
WDRB- DT Proposed	1000	683	49	296	0.15	8.7	1.9

For DTV operation, WDRB-DT proposes to use a Dielectric, Type TFU-32DSB-R O4 TC or equivalent antenna. The elevation pattern for this antenna shows a maximum relative field of less than [0.15] towards the ground in the vicinity of the tower. Using this relative field factor and the procedures prescribed in OET Bulletin 65, the maximum RFF resulting from the proposed operation is less than [9.0]  $\mu\text{W}/\text{cm}^2$ . This is less than 2.0% of the 455.3  $\mu\text{W}/\text{cm}^2$  maximum human exposure to RFF recommended by the current FCC guidelines for the uncontrolled/general population.

The total contribution by the proposed WDRB-DT broadcast facilities and the addition of the proposed operation of WMYO-DT at 2 meters above ground level is less than 4% of the current FCC guidelines for uncontrolled/general population exposure.

Authorized personnel and rigging contractors will be alerted to the potential zone of high field level on the tower, and if necessary, the station will operate with reduced power or terminate the operation of the transmitter as appropriate when it is necessary for authorized personnel or contractors to perform work on the tower. Workers and the general public, therefore, will not be subjected to RFF levels in excess of the current FCC guidelines.

#### Environmental Assessment

An environmental assessment ("EA") is categorically excluded under Section 1.1306 of the FCC Rules and Regulations as the tower was constructed prior to the requirements specified in WT Docket No. 03-128 and the licensee indicates:

- (a)(1) The existing tower is not located in an officially designated wilderness area.
- (a)(2) The existing tower is not located in an officially designated wildlife preserve.
- (a)(3) The proposed facilities will not affect any listed threatened or endangered species or habitats.
- (a)(3)(ii) The proposed facilities will not jeopardize the continued existence of any proposed endangered or threatened species or likely to result in the destruction or adverse modification of proposed critical habitats.
- (a)(4) The proposed facilities located on a tower which was built prior to the adoption of WT Docket No. 03-128 and is grandfathered and has not affected any known districts, sites, buildings, structures, or objects significant in American history, architecture, archaeology, engineering, or culture.



- (a)(5) The existing tower is not located near any known Indian religious sites.
- (a)(6) The existing tower is not located in a flood plain.
- (a)(7) The installation of the DTV facilities on an existing guyed tower will not involve a significant change in surface features of the ground in the vicinity of the tower.
- (a)(8) It is not proposed to equip the tower with high intensity white lights unless required by the FAA.
- (b) Workers and the general public will not be subjected to RFF levels in excess of the current FCC guidelines contained in OET Bulletin No. 65, Edition 97-01, dated August 1997 and Supplement A.

COHEN, DIPPELL AND EVERIST, P.C.

TABLE I  
LONGLEY-RICE INTERFERENCE ANALYSIS  
FOR THE PROPOSED OPERATION  
ABOVE ITS ALLOTTED APPENDIX B FACILITIES AND  
IN RELATION TO OTHER ALLOTTED APPENDIX B FACILITIES  
AND OTHER POTENTIALLY AFFECTED STATIONS IN CDBS  
WDRB-DT, LOUISVILLE, KENTUCKY  
CHANNEL 49 1000 KW ND ERP 390.4 METERS HAAT  
JUNE 2008

<u>Channel</u>	<u>Call</u>	<u>City/State</u>	<u>Dist(km)</u>	<u>Status</u>	<u>FCC File No.</u>	<u>Result</u>
45	WJYL-CA	CLARKSVILLE IN	2.7	LIC	BLTTA-20030210AAO	0.00%
48	WTTV-DT	BLOOMINGTON IN	120.3	ALLOT		0.03%
48	WTTV-DT	BLOOMINGTON IN	120.3	CP	BPCDT-20060707AFA	0.01%
48	WTTV-DT	BLOOMINGTON IN	120.3	LIC	BLCDDT-20060630ACD	0.09%
48	WKGB-DT	BOWLING GREEN KY	156.2	ALLOT		no interference
48	WKGB-DT	BOWLING GREEN KY	156.2	LIC	BLEDT-20020304ALH	no interference
49	WAFF-DT	HUNTSVILLE AL	409.1	ALLOT		no interference
49	WAFF-DT	HUNTSVILLE AL	409.1	LIC	BLCDDT-20021023ABD	no interference
49	WDKA-DT	PADUCAH KY	291.2	ALLOT		0.00%
49	WDKA-DT	PADUCAH KY	291.2	CP	BPCDT-20080317AIT	0.00%
49	K49FC	ST. LOUIS MO	382.6	LIC	BLTTTL-19990622JF	no interference
49	WNWO-DT	TOLEDO OH	425.4	ALLOT		no interference
49	WNWO-DT	TOLEDO OH	425.4	LIC	BLCDDT-20020403AAR	no interference
49	WLFG-DT	GRUNDY VA	372.5	ALLOT		0.00%
49	WLFG-DT	GRUNDY VA	372.5	CP	BPCDT-19991029AGK	0.00%
49	WTAP-DT	PARKERSBURG WV	387	ALLOT		no interference
49	WTAP-DT	PARKERSBURG WV	387	LIC	BLCDDT-20040423ABG	no interference
50	WALV-CA	INDIANAPOLIS IN	177.8	LIC	BLTTA-20020621AAJ	no interference
50	WDTN-DT	DAYTON OH	205.1	ALLOT		no interference
50	WDTN-DT	DAYTON OH	205.1	LIC	BLCDDT-20050629AAL	no interference

ABOVE GROUND

ABOVE MEAN SEA LEVEL

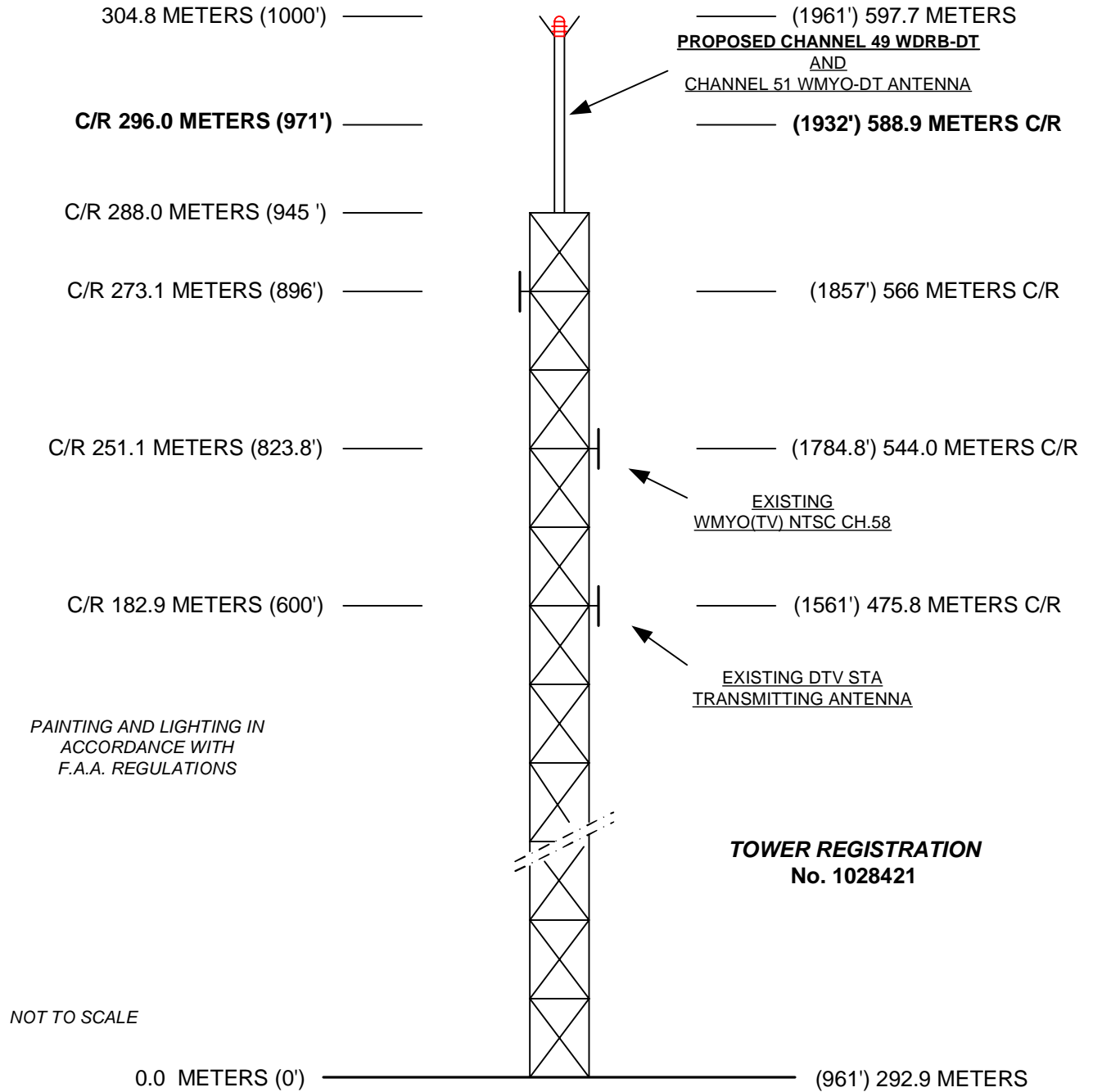


EXHIBIT E - 1  
TOWER SKETCH  
EXISTING TOWER  
**WDRB-DT, LOUISVILLE, KENTUCKY**

JUNE 2008

Cohen, Dippell and Everist, P.C.

EXHIBIT E-2

ANTENNA MANUFACTURER DATA

WDRB-DT, LOUISVILLE, KENTUCKY



Proposal #: **C-x**  
Call Letters: **WDRB**

Antenna Type: **TFU-32GTH-R O6**  
Location: **Louisville, KY**

Channel: **49 DTV**  
**51 DTV**

Electrical Specifications		Value		Remarks	
		Ratio	dBd		
RMS Gain at Main Lobe over Halfwave Dipole	Hpol	26.0	14.15	D49; D51: 26.0 (14.15 dB)	
	Vpol				
RMS Gain at Horizontal over Halfwave Dipole	Hpol	14.5	11.61	D49; D51: 14.5 (11.61 dB)	
	Vpol				
Peak Directional Gain over Halfwave Dipole	Hpol				
	Vpol				
Peak Directional Gain at Horizontal over Halfwave Dipole	Hpol				
	Vpol				
Circularity Directional		dB			
Axial Ratio		dB			
Beam Tilt		0.90 deg		D49; D51: 0.90 deg	
Average Power		x kW	##### dBk	+x kW average DTV power	
Antenna Input: T/L		8 3/16 in	75.0 ohm	Type: EIA/DCA EHT	
Maximum Antenna Input VSWR		Channel 1.12 : 1		Notes: 5 psi dry air or Nitrogen required.  D51: Channel: 1.10 : 1	
Patterns	Azimuth	TFU-O6		D49 D51	
	Elevation	32G260090	32G260090-90		
		32G260090	32G260090-90		
Mechanical Specifications		Metric	English	Preliminary	
Height with Lightning Protector	H4	16.1 m	52.8 ft		
Height Less Lightning Protector	H2	14.9 m	48.8 ft	TIA/EIA-222-F.	
Height of Center of Radiation	H3	7.0 m	24.4 ft		
Basic Wind Speed	V	112.7 km/h	70 mi/h		
Force Coeff. x Projected Area	CaAc	x m <sup>2</sup>	x ft <sup>2</sup>	Above base flange	
Moment Arm	D1	x m	x ft	Above base flange	
Force Coeff. x Projected Area	CaAc	x m <sup>2</sup>	x ft <sup>2</sup>	Below tower top	
Moment Arm	D3	x m	x ft	Below tower top	
Pole Bury Length	D2	x m	x ft		
Weight	W	x t	x lbs		
Radome					
Antenna designed in accordance with AISC specifications for design of structural steel for building as prescribed by TIA/EIA-222-F.					

NOTE:

Prepared By : 0 xxx Approved By : xxx  
Original Date : 12-Jun-08

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Proposal Number	C-x	
Date	12-Jun-08	
Call Letters	WDRB	Channel 49
Location	Louisville, KY	
Customer		
Antenna Type	TFU-32GTH-R O6	

## SYSTEM SUMMARY

### Antenna:

Type:	TFU-32GTH-R O6	ERP:	1000 kW	( 30.00 dBk )
Channel:	49	RMS Gain*:	26.0	( 14.15 dB )
Location:	Louisville, KY	Input Power:	38.5 kW	( 15.85 dBk )

H Pol

### Transmission Line:

Type:	EIA/DCA	Attenuation:	0.95 dB
Size:	8-3/16 in	Efficiency:	80.4%
Impedance:	75 ohm		
Length:	1,000 ft	304.8 m	

Combiner:	DCA	Attenuation:	0.25 dB
		Efficiency:	94.4%

### Combiner Input:

Power Required: 50.7 kW ( 17.05 dBk )

\* Gain is with respect to half wave dipole.

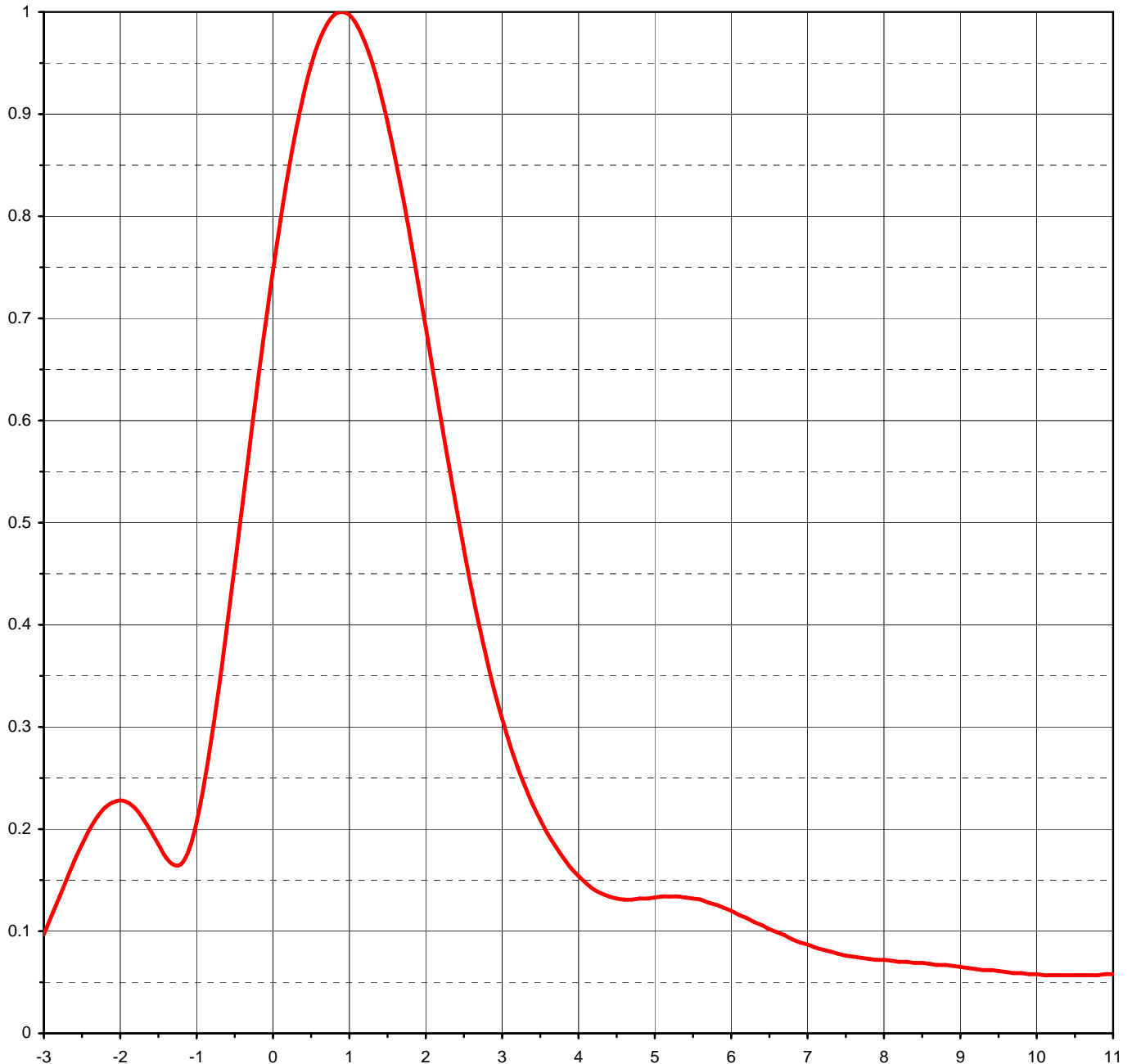
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Proposal Number	<b>C-x</b>	
Date	<b>12-Jun-08</b>	
Call Letters	<b>WDRB</b>	Channel <b>49</b>
Location	<b>Louisville, KY</b>	
Customer		
Antenna Type	<b>TFU-32GTH-R O6</b>	

## ELEVATION PATTERN

RMS Gain at Main Lobe	<b>26.00 ( 14.15 dB )</b>	Beam Tilt	<b>0.90 deg</b>
RMS Gain at Horizontal	<b>14.50 ( 11.61 dB )</b>	Frequency	<b>683.00 MHz</b>
Calculated / Measured	<b>Calculated</b>	Drawing #	<b>32G260090</b>



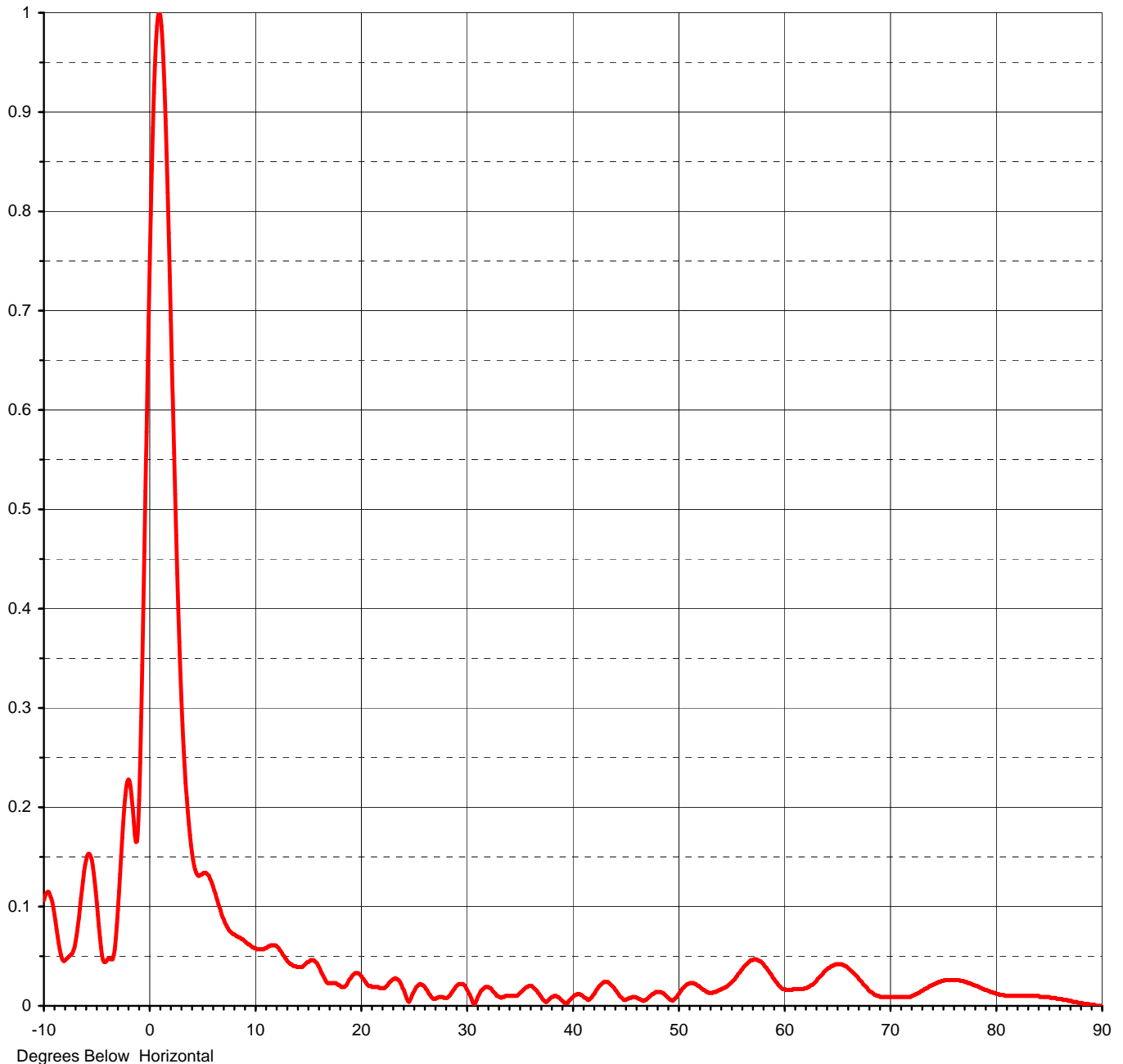
Degrees Below Horizontal



Proposal Number	<b>C-x</b>	
Date	<b>12-Jun-08</b>	
Call Letters	<b>WDRB</b>	Channel <b>49</b>
Location	<b>Louisville, KY</b>	
Customer		
Antenna Type	<b>TFU-32GTH-R O6</b>	

## ELEVATION PATTERN

RMS Gain at Main Lobe	<b>26.00 ( 14.15 dB )</b>	Beam Tilt	<b>0.90 deg</b>
RMS Gain at Horizontal	<b>14.50 ( 11.61 dB )</b>	Frequency	<b>683.00 MHz</b>
Calculated / Measured	<b>Calculated</b>	Drawing #	<b>32G260090-90</b>







Proposal Number **C-x**  
Date **12-Jun-08**  
Call Letters **WDRB** Channel **49**  
Location **Louisville, KY**  
Customer  
Antenna Type **TFU-32GTH-R 06**

## TABULATION OF ELEVATION PATTERN

Elevation Pattern Drawing #: **32G260090-90**

Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
-10.0	0.106	2.4	0.515	10.6	0.057	30.5	0.007	51.0	0.022	71.5	0.009
-9.5	0.114	2.6	0.435	10.8	0.057	31.0	0.006	51.5	0.023	72.0	0.010
-9.0	0.092	2.8	0.366	11.0	0.058	31.5	0.016	52.0	0.020	72.5	0.012
-8.5	0.057	3.0	0.308	11.5	0.061	32.0	0.019	52.5	0.016	73.0	0.015
-8.0	0.046	3.2	0.261	12.0	0.061	32.5	0.015	53.0	0.013	73.5	0.018
-7.5	0.051	3.4	0.224	12.5	0.055	33.0	0.010	53.5	0.014	74.0	0.021
-7.0	0.065	3.6	0.195	13.0	0.047	33.5	0.009	54.0	0.016	74.5	0.024
-6.5	0.108	3.8	0.172	13.5	0.042	34.0	0.010	54.5	0.019	75.0	0.025
-6.0	0.147	4.0	0.154	14.0	0.039	34.5	0.010	55.0	0.023	75.5	0.026
-5.5	0.148	4.2	0.141	14.5	0.039	35.0	0.012	55.5	0.029	76.0	0.026
-5.0	0.104	4.4	0.134	15.0	0.044	35.5	0.017	56.0	0.036	76.5	0.026
-4.5	0.051	4.6	0.131	15.5	0.046	36.0	0.020	56.5	0.042	77.0	0.024
-4.0	0.047	4.8	0.132	16.0	0.041	36.5	0.017	57.0	0.046	77.5	0.023
-3.5	0.047	5.0	0.133	16.5	0.030	37.0	0.010	57.5	0.046	78.0	0.020
-3.0	0.097	5.2	0.134	17.0	0.023	37.5	0.004	58.0	0.043	78.5	0.018
-2.8	0.133	5.4	0.133	17.5	0.023	38.0	0.008	58.5	0.036	79.0	0.016
-2.6	0.169	5.6	0.131	18.0	0.021	38.5	0.010	59.0	0.028	79.5	0.014
-2.4	0.200	5.8	0.126	18.5	0.019	39.0	0.006	59.5	0.021	80.0	0.012
-2.2	0.221	6.0	0.120	19.0	0.027	39.5	0.003	60.0	0.017	80.5	0.011
-2.0	0.228	6.2	0.113	19.5	0.033	40.0	0.008	60.5	0.016	81.0	0.010
-1.8	0.220	6.4	0.106	20.0	0.031	40.5	0.012	61.0	0.017	81.5	0.010
-1.6	0.198	6.6	0.099	20.5	0.024	41.0	0.010	61.5	0.017	82.0	0.010
-1.4	0.172	6.8	0.092	21.0	0.020	41.5	0.006	62.0	0.018	82.5	0.010
-1.2	0.166	7.0	0.087	21.5	0.019	42.0	0.011	62.5	0.020	83.0	0.010
-1.0	0.207	7.2	0.082	22.0	0.018	42.5	0.019	63.0	0.024	83.5	0.010
-0.8	0.291	7.4	0.078	22.5	0.020	43.0	0.024	63.5	0.030	84.0	0.010
-0.6	0.400	7.6	0.075	23.0	0.026	43.5	0.023	64.0	0.036	84.5	0.009
-0.4	0.518	7.8	0.073	23.5	0.027	44.0	0.018	64.5	0.040	85.0	0.009
-0.2	0.637	8.0	0.072	24.0	0.018	44.5	0.010	65.0	0.042	85.5	0.008
0.0	0.747	8.2	0.070	24.5	0.005	45.0	0.006	65.5	0.041	86.0	0.007
0.2	0.843	8.4	0.069	25.0	0.013	45.5	0.008	66.0	0.038	86.5	0.006
0.4	0.919	8.6	0.068	25.5	0.021	46.0	0.009	66.5	0.033	87.0	0.005
0.6	0.971	8.8	0.067	26.0	0.020	46.5	0.006	67.0	0.027	87.5	0.004
0.8	0.997	9.0	0.065	26.5	0.012	47.0	0.006	67.5	0.021	88.0	0.003
1.0	0.997	9.2	0.063	27.0	0.007	47.5	0.011	68.0	0.015	88.5	0.002
1.2	0.971	9.4	0.062	27.5	0.009	48.0	0.014	68.5	0.011	89.0	0.001
1.4	0.923	9.6	0.060	28.0	0.008	48.5	0.013	69.0	0.009	89.5	0.000
1.6	0.857	9.8	0.059	28.5	0.011	49.0	0.009	69.5	0.009	90.0	0.000
1.8	0.778	10.0	0.058	29.0	0.019	49.5	0.005	70.0	0.009		
2.0	0.691	10.2	0.057	29.5	0.022	50.0	0.011	70.5	0.009		
2.2	0.601	10.4	0.057	30.0	0.018	50.5	0.018	71.0	0.009		

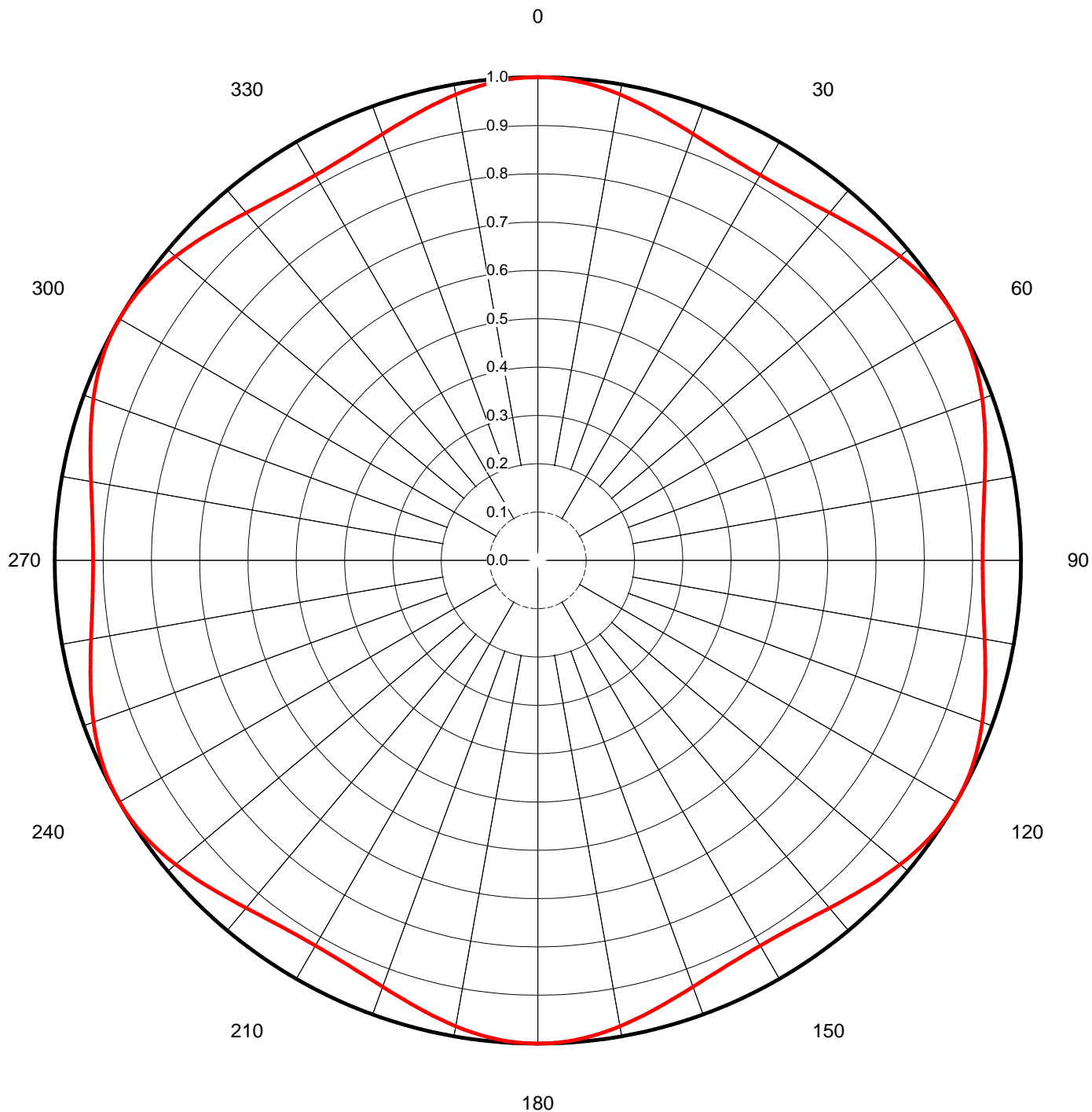
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Proposal Number	<b>C-x</b>		
Date	<b>12-Jun-08</b>		
Call Letters	<b>WDRB</b>	Channel	<b>49</b>
Location	<b>Louisville, KY</b>		
Customer			
Antenna Type	<b>TFU-32GTH-R O6</b>		

## AZIMUTH PATTERN

Gain	<b>1.10</b>	<b>( 0.41 dB)</b>
Calculated / Measured	<b>Calculated</b>	

Frequency	<b>683.00 MHz</b>
Drawing #	<b>TFU-O6</b>





Proposal Number

**C-x**

Date

**12-Jun-08**

Call Letters

**WDRB**

Channel

**49**

Location

**Louisville, KY**

Customer

Antenna Type

**TFU-32GTH-R 06****TABULATION OF AZIMUTH PATTERN**Azimuth Pattern Drawing #: **TFU-06**

Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
0	1.000	45	0.959	90	0.921	135	0.959	180	1.000	225	0.959	270	0.921	315	0.959
1	1.000	46	0.963	91	0.921	136	0.954	181	1.000	226	0.963	271	0.921	316	0.954
2	0.999	47	0.967	92	0.921	137	0.950	182	0.999	227	0.967	272	0.921	317	0.950
3	0.998	48	0.971	93	0.922	138	0.946	183	0.998	228	0.971	273	0.922	318	0.946
4	0.996	49	0.975	94	0.924	139	0.943	184	0.996	229	0.975	274	0.924	319	0.943
5	0.994	50	0.979	95	0.925	140	0.939	185	0.994	230	0.979	275	0.925	320	0.939
6	0.992	51	0.982	96	0.928	141	0.936	186	0.992	231	0.982	276	0.928	321	0.936
7	0.989	52	0.986	97	0.930	142	0.933	187	0.989	232	0.986	277	0.930	322	0.933
8	0.986	53	0.989	98	0.933	143	0.930	188	0.986	233	0.989	278	0.933	323	0.930
9	0.982	54	0.992	99	0.936	144	0.928	189	0.982	234	0.992	279	0.936	324	0.928
10	0.979	55	0.994	100	0.939	145	0.925	190	0.979	235	0.994	280	0.939	325	0.925
11	0.975	56	0.996	101	0.943	146	0.924	191	0.975	236	0.996	281	0.943	326	0.924
12	0.971	57	0.998	102	0.946	147	0.922	192	0.971	237	0.998	282	0.946	327	0.922
13	0.967	58	0.999	103	0.950	148	0.921	193	0.967	238	0.999	283	0.950	328	0.921
14	0.963	59	1.000	104	0.954	149	0.921	194	0.963	239	1.000	284	0.954	329	0.921
15	0.959	60	1.000	105	0.959	150	0.921	195	0.959	240	1.000	285	0.959	330	0.921
16	0.954	61	1.000	106	0.963	151	0.921	196	0.954	241	1.000	286	0.963	331	0.921
17	0.950	62	0.999	107	0.967	152	0.921	197	0.950	242	0.999	287	0.967	332	0.921
18	0.946	63	0.998	108	0.971	153	0.922	198	0.946	243	0.998	288	0.971	333	0.922
19	0.943	64	0.996	109	0.975	154	0.924	199	0.943	244	0.996	289	0.975	334	0.924
20	0.939	65	0.994	110	0.979	155	0.925	200	0.939	245	0.994	290	0.979	335	0.925
21	0.936	66	0.992	111	0.982	156	0.928	201	0.936	246	0.992	291	0.982	336	0.928
22	0.933	67	0.989	112	0.986	157	0.930	202	0.933	247	0.989	292	0.986	337	0.930
23	0.930	68	0.986	113	0.989	158	0.933	203	0.930	248	0.986	293	0.989	338	0.933
24	0.928	69	0.982	114	0.992	159	0.936	204	0.928	249	0.982	294	0.992	339	0.936
25	0.925	70	0.979	115	0.994	160	0.939	205	0.925	250	0.979	295	0.994	340	0.939
26	0.924	71	0.975	116	0.996	161	0.943	206	0.924	251	0.975	296	0.996	341	0.943
27	0.922	72	0.971	117	0.998	162	0.946	207	0.922	252	0.971	297	0.998	342	0.946
28	0.921	73	0.967	118	0.999	163	0.950	208	0.921	253	0.967	298	0.999	343	0.950
29	0.921	74	0.963	119	1.000	164	0.954	209	0.921	254	0.963	299	1.000	344	0.954
30	0.921	75	0.959	120	1.000	165	0.959	210	0.921	255	0.959	300	1.000	345	0.959
31	0.921	76	0.954	121	1.000	166	0.963	211	0.921	256	0.954	301	1.000	346	0.963
32	0.921	77	0.950	122	0.999	167	0.967	212	0.921	257	0.950	302	0.999	347	0.967
33	0.922	78	0.946	123	0.998	168	0.971	213	0.922	258	0.946	303	0.998	348	0.971
34	0.924	79	0.943	124	0.996	169	0.975	214	0.924	259	0.943	304	0.996	349	0.975
35	0.925	80	0.939	125	0.994	170	0.979	215	0.925	260	0.939	305	0.994	350	0.979
36	0.928	81	0.936	126	0.992	171	0.982	216	0.928	261	0.936	306	0.992	351	0.982
37	0.930	82	0.933	127	0.989	172	0.986	217	0.930	262	0.933	307	0.989	352	0.986
38	0.933	83	0.930	128	0.986	173	0.989	218	0.933	263	0.930	308	0.986	353	0.989
39	0.936	84	0.928	129	0.982	174	0.992	219	0.936	264	0.928	309	0.982	354	0.992
40	0.939	85	0.925	130	0.979	175	0.994	220	0.939	265	0.925	310	0.979	355	0.994
41	0.943	86	0.924	131	0.975	176	0.996	221	0.943	266	0.924	311	0.975	356	0.996
42	0.946	87	0.922	132	0.971	177	0.998	222	0.946	267	0.922	312	0.971	357	0.998
43	0.950	88	0.921	133	0.967	178	0.999	223	0.950	268	0.921	313	0.967	358	0.999
44	0.954	89	0.921	134	0.963	179	1.000	224	0.954	269	0.921	314	0.963	359	1.000

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Cohen, Dippell and Everist, P.C.

TABLE II  
COMPUTED COVERAGE DATA  
FOR THE PROPOSED DTV OPERATION OF  
WDRB-DT, LOUISVILLE, KENTUCKY  
CHANNEL 49 1000 KW 390.4 METERS HAAT  
JUNE 2008

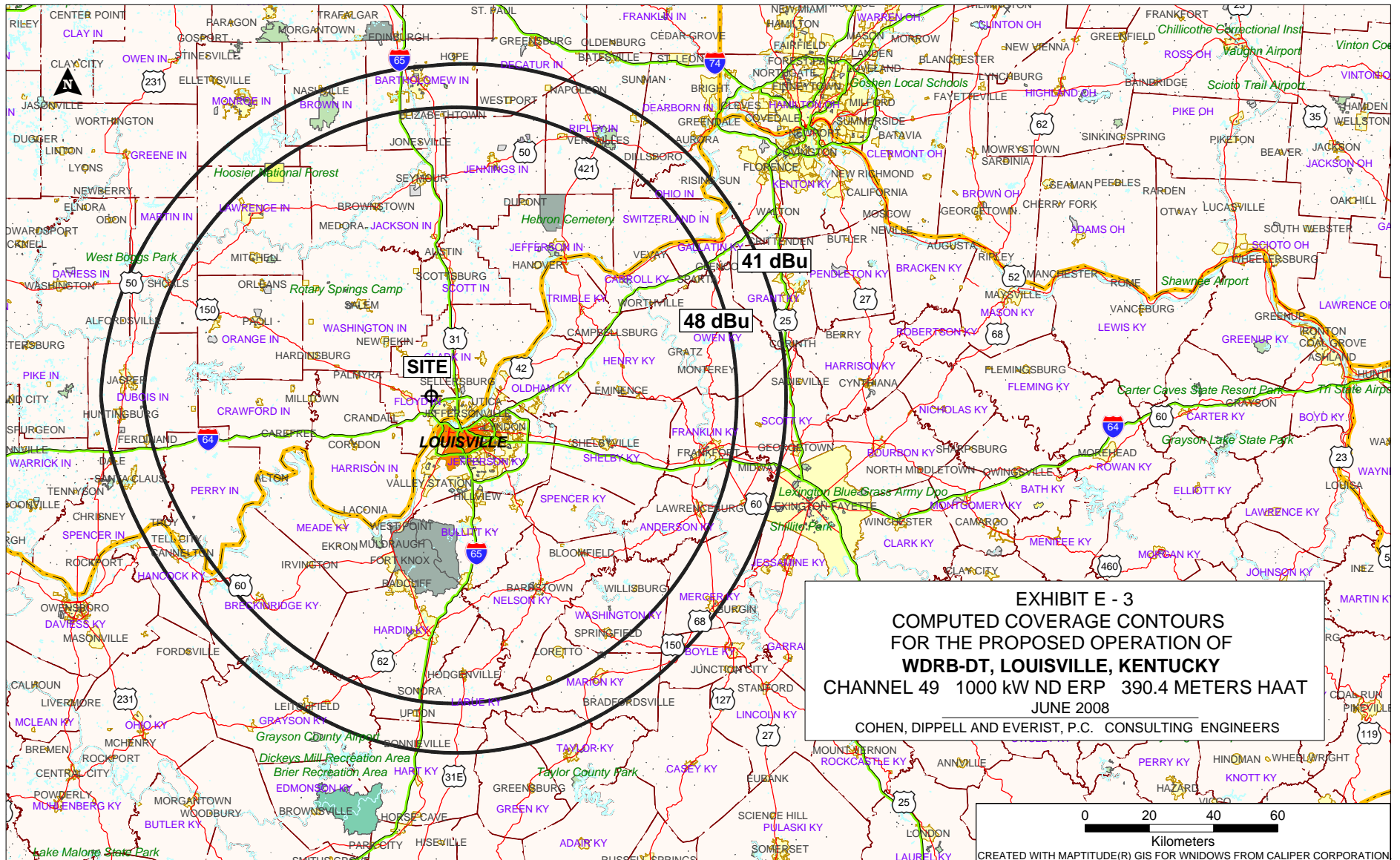
Radial Bearing N ° E, T	Average* Elevation <u>3.2 to 16.1 km</u> meters	Effective <u>Height</u> meters	Depression <u>Angle</u>	ERP At Radio <u>Horizon</u> kW	<u>Distance to Contour F(50,90)</u>	
					<u>43 dBu</u> <u>City Grade</u> km	<u>36 dBu</u> <u>Noise-Limited</u> km
0	231.8	357.1	0.523	1.000	89.2	102.5
45	153.2	435.7	0.578	1.000	94.2	109.4
90	142.2	446.7	0.585	1.000	95.0	110.3
135	129.7	459.2	0.594	1.000	95.9	111.4
180	140.6	448.3	0.586	1.000	95.1	110.4
225	260.5	328.4	0.502	1.000	86.3	99.8
270	226.3	362.6	0.527	1.000	89.7	102.9
315	254.7	334.2	0.506	1.000	86.9	100.4
Average	192.4	396.5				

\*Based on data from FCC 3-second data base

DTV Channel 49 (680-686 MHz)  
Average Elevation 3.2 to 16.1 km 192.4 meters AMSL  
Center of Radiation 588.9 meters AMSL  
Antenna Height Above Average Terrain 390.4 meters  
Effective Radiated Power 1000 kW (30 dBk) Max.

North Latitude: 38° 21' 00"  
West Longitude: 85° 50' 57"

(NAD-27)



### SECTION III - D - DTV Engineering

**Complete Questions 1-5, and provide all data and information for the proposed facility, as requested in Technical Specifications, Items 1-13.**

**Pre-Transition Certification Checklist:** An application concerning a pre-transition channel must complete questions 1(a)-(c), and 2-5. A correct answer of "Yes" to all of the questions will ensure an expeditious grant of a construction pen-nit application to modify pre-transition facilities. However, if the proposed facility is located within the Canadian or Mexican borders, coordination of the proposal under the appropriate treaties may be required prior to grant of the application. An answer of "No" will require additional evaluation of the applicable information in this form before a construction permit can be granted.

**Post-Transition Expedited Processing.** An application concerning a post-transition channel must complete questions 1(a), (d)-(e), and 2-5. A station applying for a construction permit to build its post-transition channel will receive expedited processing if its application (1) does not seek to expand the noise-limited service contour in any direction beyond that established by Appendix B of the Seventh Report and Order in MB Docket No. 87-268 establishing the new DTV Table of Allotments in 47 C.F.R. § 73.622(i) ("new DTV Table Appendix B"); (2) specifies facilities that match or closely approximate those defined in the new DTV Table Appendix B facilities; and (3) is filed within 45 days of the effective date of Section 73.616 of the rules adopted in the Report and Order in the Third DTV Periodic Review proceeding, MB Docket No. 07-91.

1. The proposed DTV facility complies with 47 C.F.R. Section 73.622 in the following respects:
  - (a) It will operate on the DTV channel for this station as established in 47 C.F.R. Section 73.622. ☐ Yes ☐ No
  - (b) It will operate a pre-transition facility from a transmitting antenna located within 5.0 km (3.1 miles) of the DTV reference site for this station as established in 47 C.F.R. Section 73.622. ☐ Yes ☐ No
  - (c) It will operate a pre-transition facility with an effective radiated power (ERP) and antenna height above average terrain (HAAT) that do not exceed the DTV reference ERP and HAAT for this station as established in 47 C.F.R. Section 73.622. ☐ Yes ☐ No
  - (d) It will operate at post-transition facilities that do not expand the noise-limited service contour in any direction beyond that established by Appendix B of the Seventh Report and Order in MB Docket No. 87-268 establishing the new DTV Table of Allotments in 47 C.F.R. § 73.622(i) ("new DTV Table Appendix B"). ☐ Yes ☐ No  
☐ N/A
  - (e) It will operate at post-transition facilities that match or reduce by no more than five percent with respect to predicted population from those defined in the new DTV Table Appendix B. ☐ Yes ☐ No  
☐ N/A
2. The proposed facility will not have a significant environmental impact, including exposure of workers or the general public to levels of RIF radiation exceeding the applicable health and safety guidelines, and therefore will not come within 47 C.F.R. Section 1.1307. ☐ Yes ☐ No

Applicant must **submit the Exhibit** called for in Item 13.

3. Pursuant to 47 C.F.R. Section 73.625, the DTV coverage contour of the proposed facility will encompass the allotted principal community. ☐ Yes ☐ No
4. The requirements of 47 C.F.R. Section 73.1030 regarding notification to radio astronomy installations, radio receiving installations and FCC monitoring stations have either been satisfied or are not applicable. ☐ Yes ☐ No
5. The antenna structure to be used by this facility has been registered by the Commission and will not require reregistration to support the proposed antenna, OR the FAA has previously determined that the proposed structure will not adversely effect safety in air navigation and this structure qualifies for later registration under the Commission's phased registration plan, OR the proposed installation on this structure does not require notification to the FAA pursuant to 47 C.F.R. Section 17.7. ☐ Yes ☐ No

### SECTION III - D DTV Engineering

**TECHNICAL SPECIFICATIONS** Ensure that the specifications below are accurate. Contradicting data found elsewhere in this application will be disregarded. All items must be completed. The response "on file" is not acceptable.

#### TECH BOX

1. Channel Number: DTV \_\_\_\_\_ Analog TV, if any \_\_\_\_\_
2. Zone: ☐ I ☐ II ☐ III
3. Antenna Location Coordinates: (NAD 27)
- \_\_\_\_\_ ° \_\_\_\_\_ ' \_\_\_\_\_ " ☐ N ☐ S Latitude  
\_\_\_\_\_ ° \_\_\_\_\_ ' \_\_\_\_\_ " ☐ E ☐ W Longitude
4. Antenna Structure Registration Number: \_\_\_\_\_
- ☐ Not applicable ☐ FAA Notification Filed with FAA
5. Antenna Location Site Elevation Above Mean Sea Level: \_\_\_\_\_ meters
6. Overall Tower Height Above Ground Level: \_\_\_\_\_ meters
7. Height of Radiation Center Above Ground Level: \_\_\_\_\_ meters
8. Height of Radiation Center Above Average Terrain: \_\_\_\_\_ meters
9. Maximum Effective Radiated Power (average power): \_\_\_\_\_ kW
10. Antenna Specifications:
- | Manufacturer | Model |
|--------------|-------|
| a.           |       |
- b. Electrical Beam Tilt: \_\_\_\_\_ degrees ☐ Not Applicable
- c. Mechanical Beam Tilt: \_\_\_\_\_ degrees toward azimuth \_\_\_\_\_ degrees True ☐ Not Applicable
- Attach as an Exhibit all data specified in 47 C.F.R. Section 73.625(c). Exhibit No.
- d. Polarization: ☐ Horizontal ☐ Circular ☐ Elliptical

## TECH BOX

e. Directional Antenna Relative Field Values:

☐

Not applicable (Nondirectional)

Rotation: \_\_\_\_\_

☐

No rotation

Degree	Value	Degree	Value	Degree	Value	Degree	Value	Degree	Value	Degree	Value
0		60		120		180		240		300	
10		70		130		190		250		310	
20		80		140		200		260		320	
30		90		150		210		270		330	
40		100		160		220		280		340	
50		110		170		230		290		350	
Additional Azimuths											

If a directional antenna is proposed, the requirements of 47 C.F.R. Section 73.625(c) must be satisfied. **Exhibit required.**

Exhibit No.

11. Does the proposed facility satisfy the pre-transition interference protection provisions of 47 C.F.R. Section 73.623(a) (Applicable only if **Certification Checklist** Items 1(a), (b), or (c) are answered "No.") and/or the post-transition interference protection provisions of 47 C.F.R. Section 73.616?

☐

Yes

☐

No

If "No," attach as an Exhibit justification therefore, including a summary of any related previously granted waivers.

Exhibit No.

12. If the proposed facility will not satisfy the coverage requirement of 47 C.F.R. Section 73.625, attach as an Exhibit justification therefore. (Applicable only if **Certification Checklist** Item 3 is answered "No.")

Exhibit No.

13. **Environmental Protection Act. Submit in an Exhibit** the following:

Exhibit No.

- a. If **Certification Checklist Item 2** is answered "Yes," a brief explanation of why an Environmental Assessment is not required. Also describe in the Exhibit the steps that will be taken to limit RF radiation exposure to the public and to persons authorized access to the tower site.

By checking "Yes" to **Certification Checklist Item 2**, the applicant also certifies that it, in coordination with other users of the site, will reduce power or cease operation as necessary to protect persons having access to the site, tower or antenna from radio frequency electromagnetic exposure in excess of FCC guidelines.

If **Certification Checklist Item 2** is answered "No," an Environmental Assessment as required by 47 C.F.R. Section 1.1311.

**PREPARER'S CERTIFICATION IN SECTION III MUST BE COMPLETED AND SIGNED.**



☐ Yes ☐ No ☐ N/A

13. **Petition for Rulemaking/Counterproposal to Add New FM Channel to FM Table of Allotments.** If the application is being submitted concurrently with a Petition for Rulemaking or Counterproposal to Amend the FM Table of Allotments (47 C.F.R. Section 73.202) to add a new FM channel allotment, petitioner/counter-proponent certifies that, if the FM channel allotment requested is allotted, petitioner/counter-proponent will apply to participate in the auction of the channel allotment requested and specified in this application.

I certify that the statements in this application are true, complete, and correct to the best of my knowledge and belief, and are made in 'good faith. I acknowledge that all certifications and attached Exhibits are considered material representations. I hereby waive any claim to the use of any particular frequency as against the regulatory power of the United States because of the previous use of the same, whether by license or otherwise, and request an authorization in accordance with this application. (See Section 304 of the Communications Act of 1934, as amended.)

Typed or Printed Name of Person Signing	Typed or Printed Title of Person Signing
Signature	Date

WILLFUL FALSE STATEMENTS ON THIS FORM ARE PUNISHABLE BY FINE AND/OR IMPRISONMENT (U.S. CODE, TITLE 18, SECTION 1001), AND/OR REVOCATION OF ANY STATION LICENSE OR CONSTRUCTION PERMIT (U.S. CODE, TITLE 47, SECTION 312(a)(1)), AND/OR FORFEITURE (U.S. CODE, TITLE 47, SECTION 503).

### SECTION III PREPARER'S CERTIFICATION

I certify that I have prepared Section III (Engineering Data) on behalf of the applicant, and that after such preparation, I have examined and found it to be accurate and true to the best of my knowledge and belief.

Name Donald G. Everist	Relationship to Applicant (e.g., Consulting Engineer) Consulting Engineer	
Signature 	Date June 16, 2008	
Mailing Address Cohen, Dippell and Everist, P.C, 1300 L Street, NW Suite 1100		
City Washington	State or Country (if foreign address) DC	ZIP Code 20005
Telephone Number (include area code) (202) 898-0111	E-Mail Address (if available) cde@attglobal.net	

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